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REMARKS

Claims 1-22 have been allowed over the prior art. The Examiner has objected to the specification due to formalities. Amendments have been made hereinabove to overcome such objection.

The Examiner has rejected claims 65-68 under 35 U.S.C. 102(e) as being clearly anticipated by Van Hook et al. (U.S. Patent No. 6,166,748). Specifically, the Examiner has asserted that Van Hook teaches each of the elements of applicant's claims 65-68. Applicant respectfully disagrees, especially in view of the amendments made hereinabove.

Van Hook teaches circuitry for performing a perspective divide (i.e. multiply by 1/w) *before* performing a clamping operation. See col. 52, lines 14-27; and Figure 24, block 566 and 572. Moreover, the purpose of this clamping operation is to clamp *"texture coordinate values"* (see col. 52, lines 25-27) based on a tile descriptor (see col. 52, lines 2-7). Traditionally, this is performed for the specific purpose of ensuring that the texture coordinates fall within the boundaries of a texture map.

In sharp contrast, applicant teaches and claims "multiplying the value of the inverse operation during a perspective correction *after* clamping the value of the inverse operation," where the inverse operation involves "vertex data" (i.e. x-value, y-value, z-value, etc.) processing (emphasis added). More particularly, applicant teaches and claims such specific order to "avoid multiplying by a large factor during the perspective correction." Note support for such amendments on pages 30 and 31 of the originally filed specification.

Applicant's claimed features are imperative in the context of the present invention since it lacks a clipping operation, unlike Van Hook (see col. 29, lines 20-21). Since Van Hook teaches a clipping operation, there is no possibility for a w-value close or equal to zero (0), and an inverse operation value close to infinity. Accordingly, there is simply no motivation for one to alter the teachings of Van Hook in accordance with applicant's claimed invention.

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In summary, Van Hook teaches clamping an inverse operation involving *texture coordinate processing*, not "vertex data" processing, as claimed by applicant. Further, Van Hook describes a process where the perspective divide *precedes* the clamping operation, where applicant's claimed invention specifies multiplying the value of the inverse operation during a perspective correction "after" clamping. Finally, Van Hook is performing the distinguishable clamping operation for texture coordinate processing, while applicant specifically teaches and claims the clamping operation involving "vertex data" to "avoid multiplying by a large factor during the perspective correction." Simply nowhere in the prior art including Van Hook is there such a technique for accomplishing the foregoing objective.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 505-5100. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-1351 (Order No. NVIDP010A/P000317). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,

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APPENDIX A

61.   (Amended) A method for handling output values in a graphics processing module representative of an inverse operation involving a W-attribute of vertex data, comprising:

(a)   processing vertex data, wherein the processing of the vertex data includes an inverse operation involving a W-attribute of the vertex data;

(b)   outputting the processed vertex data;

(c)   identifying a value of the inverse operation involving the W-attribute of the vertex data; [and]

(d)   clamping the value of the inverse operation if the value of the inverse operation meets predetermined criteria, wherein the criteria includes the value of the inverse operation being greater than a predetermined amount; and

(e)   multiplying the value of the inverse operation during a perspective correction after clamping the value of the inverse operation;

(f)   wherein the value of the inverse operation is clamped to avoid multiplying by a large factor during the perspective correction.

65.   (Amended) A computer program embodied on a computer readable medium for handling output values in a graphics processing module representative of an inverse operation involving a W-attribute of vertex data, comprising:

(a)   a code segment for processing vertex data, wherein the processing of the vertex data includes an inverse operation involving a W-attribute of the vertex data;

(b)   a code segment for outputting the processed vertex data;

(c)   a code segment for identifying a value of the inverse operation involving the W-attribute of the vertex data; [and]

(d)   a code segment for clamping the value of the inverse operation if the value of the inverse operation meets predetermined criteria, wherein the criteria includes the value of the inverse operation being greater than a predetermined amount; and

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(e)   a code segment for multiplying the value of the inverse operation during a

perspective correction after clamping the value of the inverse operation;

(f)   wherein the value of the inverse operation is clamped to avoid multiplying by

a large factor during the perspective correction.

69.   (Added) A system for handling output values in a graphics processing

module representative of an inverse operation involving a W-attribute of

vertex data, comprising:

(a)   logic for processing vertex data, wherein the processing of the vertex data

includes an inverse operation involving a W-attribute of the vertex data;

(b)   logic for outputting the processed vertex data;

(c)   logic for identifying a value of the inverse operation involving the W-

attribute of the vertex data;

(d)   logic for clamping the value of the inverse operation if the value of the

inverse operation meets predetermined criteria, wherein the criteria includes

the value of the inverse operation being greater than a predetermined amount;

and

(e)   logic for multiplying the value of the inverse operation during a perspective

correction after clamping the value of the inverse operation;

(f)   wherein the value of the inverse operation is clamped to avoid multiplying by

a large factor during the perspective correction.

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